

# CLAIMS

What is claimed is:

1. A task guide system comprising:
  - a computer having at least one central processing unit;
  - a computer memory and/or storage, residing within said computer;
  - a task guide software component, residing at least in part within said computer memory and/or storage, the task guide software component configured to include a plurality of tasks to be performed, including:
    - one or more tasks that are to be performed optionally; and
    - one or more mandatory tasks that must be performed,wherein at least one of the plurality of tasks are performed manually.
2. The system of claim 1, wherein the task guide component is further configured to require that the performance of the plurality of tasks are initiated in a pre-set sequence.
3. The system of claim 2, wherein the task guide component is further configured to include one or more floating tasks that can be initiated out of the pre-set sequence.
4. The system of claim 1, further comprising:
  - a software object within a software control system, wherein said software object represents or otherwise controls an entity in a manufacturing environment, and wherein said software object is configured to be executed by at least one of the plurality of tasks that are to be performed automatically.
5. The system of claim 4, wherein the software object is configured to trigger a manufacturing machine to run a self diagnostic procedure.

6. The system of claim 4, wherein the software object is configured to cause a material handling system to move a batch of materials from one location to another.

7. The system of claim 1, wherein the plurality of tasks include one or more tasks directed to preventive maintenance of a manufacturing machine.

8. The system of claim 1, wherein the plurality of tasks include one or more tasks directed to a manufacturing process in a microelectronic manufacturing facility.

9. The system of claim 1, wherein the task guide component is configured to be associated with a software object configured to manage a manufacturing machine or a batch of materials to be processed.

10. The system of claim 1, wherein the task guide software component comprises:  
a task guide model component that specifies the plurality of tasks; and  
a task guide activity component that becomes an instantiated task guide displayed to a user when the task guide model is associated with a software object configured to manage a manufacturing machine or a batch of materials to be processed.

11. The system of claim 1, wherein the plurality of tasks includes a sub-task guide that includes another plurality of tasks.

12. The system of claim 1, wherein the task guide component is further configured to store history information relating to results of performing one or more tasks included in the plurality of tasks.

13. A method of creating and using a computer-implemented task guide, the method comprising the steps of:  
entering into the task guide one or more tasks that are to be performed optionally;  
entering into the task guide one or more mandatory tasks that are must be performed;

wherein at least one of the one or more entered tasks are performed manually;  
displaying said tasks of the task guide entered in said preceding steps; and  
initiating at least said mandatory tasks that have been entered in said preceding steps.

14. The method of claim 13, wherein at least one of the steps of entering one or more tasks into the task guide comprises the step of entering a task directed to preventive maintenance of a manufacturing machine.

15. The method of claim 13, wherein at least one of the steps of entering one or more tasks into the task guide comprises the step of entering a task directed to manufacturing process in a microelectronic manufacturing facility.

16. The method of claim 13, further comprising the step of:  
sequentially performing the entered one or more tasks.

17. The method of claim 16, further comprising the step of:  
entering into the task guide one or more floating tasks that can be performed out of the sequence.

18. The method of claim 13, further comprising the step of:  
creating a software object configured to be executed by one or more of the plurality of tasks that are to be performed automatically.

19. The method of claim 18, wherein the step of creating a software object further comprises the step of:  
configuring the software object to trigger a manufacturing machine to run a self diagnostic procedure.

20. The method of claim 18, wherein the step of creating a software object further comprises the step of:

configuring the software object to cause a material handling system to move a batch of materials from one location to another.

21. The method of claim 13, further comprising the step of:  
associating the task guide with a software object configured to manage a manufacturing machine or a batch of material to be processed.

22. The method of claim 13, further comprising the step of:  
creating a task guide model component that specifies the plurality of tasks; and  
instantiating the task guide model when the task guide model is associated with a software object configured manage a manufacturing machine or a batch of material to be processed.

23. The method of claim 22, further comprising the step of:  
storing a version of the created task guide model.

24. The method of claim 23, further comprising the step of:  
preventing an unauthorized user from using various parts of the task guide.

25. The method of claim 13, further comprising the step of:  
entering a sub-task guide that includes a plurality of tasks into the one or more of the tasks.

26. The method of claim 13, further comprising the step of:  
storing history information relating to results of performing one or more tasks included in the plurality of tasks.

27. The method of claim 13, further comprising the step of:  
adjusting task details of at least one of the entered tasks.

28. A computer readable medium comprising instructions for execution by a computer, the instructions instructing the computer to create and use a computer-implemented task guide, the instructions for performing the steps of:

entering into the task guide one or more tasks that are to be performed optionally;  
entering into the task guide one or more mandatory tasks that must be performed;

wherein at least one of the one or more entered tasks are performed manually; and  
initiating at least said mandatory tasks that have been entered in said preceding steps.

29. The medium of claim 28, further comprising the instructions of:  
sequentially performing the entered one or more tasks.

30. The medium of claim 29, further comprising the instructions of:  
entering into the task guide one or more floating tasks that are to be performed out of the sequence.

31. The medium of claim 28, further comprising the instructions of:  
creating a software object configured to be executed by one or more of the plurality of tasks that are to be performed automatically.

32. The medium of claim 31, further comprising the instructions of:  
configuring the software object to trigger a manufacturing machine to run a self diagnostic procedure.

33. The medium of claim 31, further comprising the instructions of:  
configuring the software object to cause a material handling method to move a batch of materials from one location to another.

34. The medium of claim 28, wherein at least one of the steps of entering one or more tasks into the task guide comprises the step of entering a task directed to preventive maintenance of a manufacturing machine.

35. The medium of claim 28, wherein at least one of the steps of entering one or more tasks into the task guide comprises the step of entering a task directed to manufacturing process in a microelectronic manufacturing facility.

36. The medium of claim 28, further comprising the instructions of:  
associating the task guide with a software object configured manage a manufacturing machine or a batch of material to be processed.

37. The medium of claim 28, further comprising the instructions of:  
creating a task guide model component that specifies the plurality of tasks; and  
instantiating the task guide model when the task guide model is associated with a software object configured manage a manufacturing machine or a batch of material to be processed.

38. The medium of claim 28, further comprising the instructions of:  
entering a sub-task guide that includes a plurality of tasks into the one or more of the tasks.

39. The medium of claim 28, further comprising the instructions of:  
storing history information relating to results of performing one or more tasks included in the plurality of task.

40. A task guide system comprising:  
a computer having at least one central processing unit;  
a computer memory and/or storage, residing within said computer;

a task guide software component, residing at least in part within said computer memory and/or storage, the task guide software component configured to include a plurality of tasks to be performed including:

- one or more tasks that are to be performed optionally;
- one or more sub-task guide that includes another plurality of tasks; and
- one or more mandatory tasks that must be performed,

wherein at least one of the plurality of tasks are performed manually, and at least one of the plurality of tasks are performed automatically,

wherein the plurality of tasks include one or more tasks directed to preventive maintenance of a manufacturing machine or a manufacturing process in a microelectronic manufacturing facility,

wherein the task guide component is further configured to require that the performance of the plurality of tasks are initiated in a pre-set sequence and configured to include one or more floating tasks that can be initiated out of the pre-set sequence, and

wherein the task guide component is further configured to store history information relating to results of performing one or more tasks included in the plurality of tasks; and

a software object within a software control system, wherein said software object represents or otherwise controls an entity in a manufacturing environment, and wherein said software object is configured to be executed by said at least one of the plurality of tasks that are to be performed automatically,

wherein the software object is configured to trigger a manufacturing machine to run a self diagnostic procedure, and

wherein the software object is configured to cause a material handling system to move a batch of materials from one location to another.

41. A task guide system comprising:

a computer having at least one central processing unit;  
a computer memory and/or storage, residing within said computer;  
a task guide software component, residing at least in part within said computer memory and/or storage, the task guide software component configured to include a plurality of tasks to be performed including:

one or more tasks that are to be performed optionally; and  
one or more mandatory tasks that must be performed,  
wherein at least one of the plurality of tasks are performed manually,  
wherein the task guide component is further configured to require that the performance of the plurality of tasks are initiated in a pre-set sequence and configured to include one or more floating tasks that can be initiated out of the pre-set sequence, and  
wherein the task guide component is further configured to store history information relating to results of performing one or more tasks included in the plurality of tasks.

42. A method of creating and using a computer-implemented task guide, the method

comprising the steps of:

entering into the task guide one or more tasks that are to be performed optionally;  
entering into the task guide one or more mandatory tasks that are must be performed;  
entering into the task guide one or more tasks that are to be performed manually;  
entering into the task guide one or more tasks that are to be performed automatically;  
displaying said tasks of the task guide entered in said preceding steps;



initiating at least said mandatory tasks that have been entered in said preceding steps;  
entering into the task guide one or more tasks directed to preventive maintenance of a  
manufacturing machine;  
entering into the task guide one or more tasks directed to manufacturing process in a  
microelectronic manufacturing facility;  
sequentially performing the entered one or more tasks;  
entering into the task guide one or more floating tasks that are to be performed out of the  
sequence;  
creating a software object configured to be executed by the one or more of the plurality of  
tasks that are to be performed automatically;  
configuring the software object to trigger a manufacturing machine to run a self  
diagnostic procedure;  
configuring the software object to cause a material handling system to move a batch of  
materials from one location to another; and  
associating the task guide with a software object configured to manage a manufacturing  
machine or a batch of material to be processed.

43. A method of creating and using a computer-implemented task guide, the method  
comprising the steps of:  
entering into the task guide one or more tasks that are to be performed optionally;  
entering into the task guide one or more mandatory tasks that are must be performed,  
wherein at least one of the one or more entered tasks are performed manually;  
displaying said tasks of the task guide entered in said preceding steps;  
initiating at least said mandatory tasks that have been entered in said preceding steps;

- 8 sequentially performing the entered one or more tasks;
- 9 entering into the task guide one or more floating tasks that are to be performed out of the
- 10 sequence; and
- 11 associating the task guide with a software object configured to manage a manufacturing
- 12 machine or a batch of material to be processed.